

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A received path timing detecting circuit in a receiver used ~~the~~ in a direct spread - code division multiple access (DS-CDMA) system, comprising:

a cross correlation coefficient ~~calculating means~~ calculator for calculating cross correlation coefficients between a received electromagnetic signal and a reference electromagnetic signal in a predetermined cycle;

a differential ~~detection means~~ detector that obtains real parts of products of complex conjugate numbers of respective elements of said cross correlation coefficients { $R_{N-1,0}$, $R_{N-1,1}$, $R_{N-1,2}$,, $R_{N-1,M}$ } calculated at the N-1st cycle (N is an integer) and respective elements of said cross correlation coefficients { $R_{N,0}$, $R_{N,1}$, $R_{N,2}$,, $R_{N,M}$ } calculated at the Nth cycle, and outputs said real parts as differential detection cross correlation coefficients { $P_{N,0}$, $P_{N,1}$, $P_{N,2}$,, $P_{N,M}$ };

an ~~averaging means~~ averager for averaging said differential detection cross correlation coefficients outputted from said differential detection means by a predetermined time; and

a peak ~~detecting means~~ detector that detects one or plural peak values from said averaged cross correlation coefficients and outputs said detected one or plural peak values as said received path timing.

2. (currently amended): A received path timing detecting circuit in accordance with claim 1, wherein:

~~said cross correlation coefficient calculating means makes a signal, which a~~said reference
signal is a transmitted signal with an inserted pilot code inserted into a transmitted signal for
executing coherent detection, and wherein said transmitted signal is spread by a spreading code
allocated to ~~its own~~ a predetermined receiver, ~~said reference signal~~.

3. (currently amended): A received path timing detecting circuit in accordance with claim 1, wherein:

~~said averaging means~~ averager applies an exponential weighting average ~~method~~ or a
moving average ~~method~~ to said differential detection cross correlation coefficients by using a
predetermined time constant, when said differential detection cross correlation coefficients are
averaged.

4. (currently amended): A received path timing detecting circuit in accordance with claim 1, further comprising:

a ~~threshold value means~~ valuator that obtains a standard deviation of elements of said
cross correlation coefficients averaged at ~~said averaging means~~ averager except said peak values,
and compares a relative value among said plural peak value positions detected at said peak

~~detecting means~~ detetctor with a threshold value obtained by ~~that~~ said standard deviation ~~is~~
multiplied by a predetermined factor, and outputs an effective received path timing when said
relative value exceeded said threshold value.